

ABSTRACT OF THE DISCLOSURE

Shortcomings in conventional Very High Frequency (VHF) Digital Link Mode 3 (VDL-3) communication techniques for implementing air/ground (A/G) diversity site group (DSG) communication are identified and resolved. Beacon schedules are used to coordinate the use of VDL-3 TDMA management slots. Limited autonomy local address management techniques are used to distribute blocks of unique addresses to the ground stations (GS's) of a DSG from a common base of local addresses maintained at a control site, thus assuring that the respective ground stations assign a unique local identifier to each aircraft supported by the DSG. Aircraft supported by a DSG are polled to obtain time of arrival (TOA) and signal quality information used to: intelligently select the transmit ground station and the receive ground station used for communication between an specific aircraft and the control site; and, intelligently manage contiguous communication handoffs of aircraft from one ground station to another ground station of the DSG.